

CLAIM AMENDMENTS

Claims 1-4 (Cancelled).

5. (Previously Presented) The irregular pattern reader according to claim 10, wherein said reflection surface has a second angle of inclination relative to said detection surface, and light from said detection surface diverted at said reflection surface is emitted from said prism through said incident surface as the emission light.

Claims 6-9 (Cancelled).

10. (Previously Presented) An irregular pattern reader comprising:
a prism including
 a detection surface on which a subject to be detected, having a irregular pattern, is put,
 a planar incident surface having a first angle of inclination relative to said detection surface, said prism emitting emission light reflected from said detecting surface and corresponding to incident light incident upon said incident surface, and
 a reflection surface for reflecting the light reflected from said detection surface;

 a first optical system including a light source, light from the light source being incident on said incident surface of said prism, the light having an optical axis substantially parallel to said detection surface where the light is incident on said incident surface;
 an image pick-up device; and
 a second optical system for transmitting the emission light emitted from said prism to said image pick-up device.

Claims 11 and 12 (Cancelled).

13. (Previously Presented) The irregular pattern reader according to claim 27, wherein a region through which a luminous flux in said prism does not pass is omitted from said prism at a surface facing said detection surface.

14. (Previously Presented) The irregular pattern reader according to claim 13, wherein said detection surface of said prism is approximately 20mm in width and approximately 15mm in length, and said prism is not more than 10mm in a thickness direction extending from said detection surface of said prism toward said image pick-up device.

15. (Previously Presented) The irregular pattern reader according to claim 17, wherein said first optical system including said light source is located on an electronic substrate, and has a collimator lens and incident light turning means located between said light source and said collimator lens, and incident light is incident upon said incident surface from said light source through said incident light turning means and said collimator lens.

16. (Previously Presented) The irregular pattern reader according to claim 15, wherein said incident light turning means includes a transparent block, and an incident light emission surface of said incident light turning means includes said collimator lens.

17. (Previously Presented) The irregular pattern reader according to claim 27, wherein said second optical system is located on the image pick-up surface of said image pick-up device.

18. (Previously Presented) The irregular pattern reader according to claim 16, wherein said incident light turning means is not more than 10mm in thickness.

19. (Previously Presented) The irregular pattern reader according to claim 27, wherein a region through which a luminous flux in said prism does not pass is omitted from said prism at a surface facing said detection surface, said second optical system and said image pick-up device are respectively located on an electronic substrate, and each of the elements mounted on said electronic substrate has a thickness of no more than 10mm and a length no more than 35mm, and said detection surface of said prism is approximately 20mm in width and approximately 15mm in length.

20. (Previously Presented) The irregular pattern reader according to claim 19, wherein said image pick-up device is mounted as a bare chip on one of said electronic substrate and said second optical system.

21. (Previously Presented) The irregular pattern reader according to claim 27, wherein said prism includes a concave reflecting surface reflecting to said emission surface light reflected from said detection surface.

22. (Previously Presented) The irregular pattern reader according to claim 21, wherein said lens portion is a cylindrical surface.

23. (Previously Presented) The irregular pattern reader according to claim 21 wherein said lens portion includes a toric lens mounted on said prism.

24. (Previously Presented) The irregular pattern reader according to claim 27, wherein said prism includes two reflection surfaces and the light reflected from said detection surface is reflected a second time from said incident surface and, sequentially, from each of said two reflection surfaces and is emitted through said lens portion.

Claim 25 (Cancelled).

26. (Previously Presented) The irregular pattern reader according to claim 5, wherein said prism includes a reflection member on said reflection surface.

27. (Previously Presented) The irregular pattern reader according to claim 10, wherein

said prism includes a lens portion receiving light reflected from said reflection surface and directing the light to said second optical system, and

an image pick-up surface of said image pick-up device is substantially parallel to said detection surface.

28 (Previously Presented) The irregular pattern reader according to claim 27, wherein

said reflection surface has a cylindrical reflection surface for converging in a horizontal direction the light reflected from said detection surface, and

said lens portion includes a cylindrical lens for converging in a vertical direction, transverse to the horizontal direction, the light reflected from said cylindrical reflection surface.

29. (New) The irregular pattern reader according to claim 10, wherein said prism includes a planar emission surface having a second angle of inclination relative to said detection surface, different from the first angle of inclination, and through which the emission light is emitted from said prism, said incident surface and said emission surface being contiguous.